This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.



ENTERED

60

120

180

240

300

360

420 480

540

600

660

720

780

840

900

960

1080

1140

1146

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/901,910

DATE: 07/25/2001

TIME: 14:29:14

Input Set : A:\126p2-sl.txt

Output Set: N:\CRF3\07252001\1901910.raw

```
3 <110> APPLICANT: Li, Haodong
         Adams, Mark
         Calenda Valerie
 5
 7 <120> TITLE OF INVENTION: Connective Tissue Growth Factor-2
 9 <130> FILE REFERENCE: PF126P2
11 <140> CURRENT APPLICATION NUMBER: US/09/901,910
12 <141> CURRENT FILING DATE: 2001-07-11
14 <150> PRIOR APPLICATION NUMBER: 09/348,815
15 <151> PRIOR FILING DATE: 1999-07-08
17 <150> PRIOR APPLICATION NUMBER: 08/459,101
18 <151> PRIOR FILING DATE: 1995-06-02
20 <150> PRIOR APPLICATION NUMBER: PCT/US94/07736
21 <151> PRIOR FILING DATE: 1994-07-12
23 <150> PRIOR APPLICATION NUMBER: 60/217,402
24 <151> PRIOR FILING DATE: 2000-07-11
26 <150> PRIOR APPLICATION NUMBER: 60/291,642
27 <151> PRIOR FILING DATE: 2001-05-18
29 <160> NUMBER OF SEQ ID NOS: 8
31 <170> SOFTWARE: PatentIn version 3.0
33 <210> SEQ ID NO: 1
34 <211> LENGTH: 1146
35 <212> TYPE: DNA
36 <213> ORGANISM: homo sapiens
38 <400> SEQUENCE: 1
39 atgagetece geategeeag ggegetegee ttagtegtea ecetteteca ettgaceagg
41 etggegetet ceacetgece egetgeetge caetgeece tggaggegee caagtgegeg
43 cogggagtog ggotggtoog ggacggotge ggotgetgta aggtotgegg caagcagete
45 aacqaqqact qcaqcaaaac qcaqccctqc qaccacacca aggggctgga atgcaacttc
47 ggcgccaget ccaccgctct gaaggggate tgcagagctc agtcagaggg cagaccctgt
49 gaatataact ccagaatcta ccaaaacggg gaaagtttcc agcccaactg taaacatcag
51 tgcacatgta ttgatggcgc cgtgggctgc attcctctgt gtccccaaga actatctctc
53 cocaacttgg gctgtcccaa ccctcggctg gtcaaagtta ccgggcagtg ctgcgaggag
55 tgggtctgtg acgaggatag tatcaaggac cccatggagg accaggacgg cctccttggc
57 aaggagetgg gattegatge etecgaggtg gagttgaega gaaacaatga attgattgea
59 gttggaaaag gcagctcact gaagcggctc cctgtttttg gaatggagcc tcgcatccta
61 tacaaccett tacaaggeea gaaatgtatt gttcaaacaa ettcatggte ecagtgetea
63 aagacetgtg qaactggtat etecacaega gttaccaatg acaaccetga gtgeegeett
```

65 gtgaaagaaa cccggatttg tgaggtgcgg ccttgtggac agccagtgta cagcagcctg

67 aaaaagggca agaaatgcag caagaccaag aaatcccccg aaccagtcag gtttacttac

69 gctqqatqtt tqaqtqtqaa gaaataccqq cccaaqtact gcgqttcctq cqtggacqqc

71 cgatqctqca cqccccaqct gaccaqqact qtgaaqatqc qqttccqctg cgaaqatggg 73 gagacatttt ccaagaacgt catgatgatc cagtcctgca aatgcaacta caactgcccg

75 catgccaatg aagcagcgtt teeettetac aggetgttea atgacattea caaatttagg

77 gactaa 79 <210> SEQ ID NO: 2 80 <211> LENGTH: 381 81 <212> TYPE: PRT





DATE: 07/25/2001 TIME: 14:29:14

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/901,910

Input Set : A:\126p2-sl.txt

Output Set: N:\CRF3\07252001\1901910.raw

82 <213> OR 84 <400> SE		no sapien	ıs								
86 Met Ser 87 1	-	e Ala Arg	Ala		Ala 1 10	Leu	Val	Val	Thr	Leu 15	Leu
89 His Leu	-	ı Ala Leu	Ser			Pro	Ala	Ala	Cys 30		Cys
92 Pro Leu	Glu Ala Pr 35	o Lys Cys	Ala 40	Pro	Gly '	Val	Gly	Leu 45	Val	Arg	Asp
95 Gly Cys 96 50	Gly Cys Cy	s Lys Val 55	Cys	Ala :	Lys (Leu 60	Asn	Glu	Asp	Cys
98 Ser Lys 99 65	Thr Gln Pr	Cys Asp 70	His	Thr :		Gly 75	Leu	Glu	Cys	Asn	Phe 80
101 Gly A1a 102	Ser Ser T		u Lys	G1y	Ile 90	Cys	Arg	A1a	Gln	Ser	Glu
104 Gly Arg 105	Pro Cys G	lu Tyr As	n Ser	Arg 105	Ile	Tyr	Gln	Asn	Gly 110		Ser
107 Phe Gln 108		ys Lys Hi	s Gln 120	_	Thr	Cys	Ile	Asp 125	_	Ala	Val
110 Gly Cys 111 130		eu Cys Pr 13	o Gln		Leu	ser	Leu 140	Pro		Leu	Gly
113 Cys Pro 114 145	Asn Pro A			Val	Thr	Gly 155	Gln		Cys	Glu	Glu 160
116 Trp Val			r Ile	Lys	Asp 170	Pro		Glu	Asp	Gln 175	Asp
119 Gly Leu 120	Leu Gly L	/s Glu Le	u Gly	Phe 185			Ser	G1u	Va1 190	G1u	
122 Thr Arg 123	Asn Asn G	lu Leu Il	e Ala 200		Gly	Lys	Gly	Ser 205	Ser	Leu	Lys
125 Arg Leu 126 210	Pro Val P	ne Gly Me 21		Pro	Arg	Ile	Leu 220		Asn	Pro	Leu
128 Gln Gly 129 225	Gln Lys C	ys Ile Va 230	l Gln	Thr	Thr	Ser 235	Trp	Ser	Gln	Cys	Ser 240
131 Lys Thr	-	nr Gly Il 15	e Ser	Thr	Arg 250	Val	Thr	Asn	Asp	Asn 255	Pro
134 Glu Cys 135	Arg Leu Va 260	al Lys Gl	u Thr	Arg 265	I1e	Cys	Glu	Val	Arg 270	Pro	Cys
137 Gly Gln 138	Pro Val Ty 275	r Ser Se	r Leu 280		Lys	Gly	Lys	Lys 285	Cys	Ser	Lys
140 Thr Lys 141 290	Lys Ser P	o Glu Pr 29		Arg	Phe	Thr	Tyr 300	Ala	Gly	Cys	Leu
143 Ser Val 144 305	Lys Lys Ty	r Arg Pr 310	o Lys	Tyr	Cys	Gly 315	Ser	Cys	Val	Asp	Gly 320
146 Arg Cys 147	Cys Thr Pi		u Thr	Arg	Thr 330	Val	Lys	Met	Arg	Phe 335	Arg
149 Cys Glu 150	Asp Gly G	u Thr Ph	e Ser	Lys 345	Asn	Val	Met	Met	Ile 350	Gln	Ser
152 Cys Lys 153	Cys Asn Ty 355	r Asn Cy	s Pro 360		Ala	Asn	Glu	Ala 365	Ala	Phe	Pro
155 Phe Tyr	Arg Leu Ph	ne Asn As	p Ile	His	Lys	Phe	Arg	Asp			





RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/901,910

DATE: 07/25/2001 TIME: 14:29:14

Input Set : A:\126p2-sl.txt

Output Set: N:\CRF3\07252001\I901910.raw

159 210 SEQ ID NO 3	156	370 375		380		
161	159	<210> SEQ ID NO: 3				
162 <213> ORGANISM: homo sapiens 164 <400> SEQUENCE: 3 168 c210> SEQ ID NO: 4 169 <211> LENGTH: 27 170 <212> TYPE: DNA 171 <213> ORGANISM: homo sapiens 173 <400> SEQUENCE: 4 174 aaaggatca caatgagct cogaatc 176 <210> SEQ ID NO: 5 177 <211> LENGTH: 58 178 <212> TYPE: DNA 179 <213> ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgctctagat taaggctagt ctgggacgt gtatgggtat tggaacagc tgtagaag 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagctcc gaatcgtcag ggagctcgcc ttagtcgac cacttccac cttgaccagg 192 gtggggctt ccacctgcc cgctgactg cactgcccc tggaggcgc caagtgcgcg 194 ccgggagtcg ggatgtcg ggacgtcgc ggacgacca agggcgcg caagacgtc 196 aacgaggact gcagaaaaac gcagcctgc ggacgacca agggcgga atgacactc 197 gagagtcgcc gaatcacaca aggggctga atgacactc 198 gcgccagct ccaccgtct gaaggggtt tgcagaagt tgagaagtc 199 atgaggtct ccacctgcc caatgagggat tgcagaagtc tgcagaagtc 190 gaatataact ccagaatcta ccaaaacagg gaagttcc agtcagaggc caagacctc 190 gagggggtt gtgaggggggg ggaagttcc agtcagaggc gagacctct 190 gagtgggtc tgtagtagg ggaggttcg ggatgttgta aggactgcg caagacctc 190 gagtgggtct gtgagggggggggat tgcattcct tgtgtccca agaactact 190 gagtgggtc tgtgacggg gacggcgc caacacca aggggctgga atgcaactc 191 ggagtgggat tgtgagaggggggat tgcattcct tgtgtccca agaactatc 192 tgcacatgta ttggatggc ccggagggt tgcattcct tgtgtcccca agaactatc 193 gcagtgggat tgtgagagg tggggggggat tgcattcct tgtgtcccca agaactatc 194 ctcacaact tgggttgtcc acaccaccag gtaggagtag aggaccatg gagaccatt 195 gcagttggaa agaagact cactgaagagg ctgggtggat tgcattcct tgtgtaccac gagaactact 196 gcagttggaa agaagaact actgaagagg ctggggattagaagaaca tgaattgat 197 gcagttggaa agaacaca actgaagagacc agaacaca actgaatgag gcaccacaca agaacacacacacacacacacacac	160	<211> LENGTH: 28				
164 <400> SEQUENCE: 3 165 cgcgggatcc tgcgcgaca aatgagct	161	<212> TYPE: DNA				
168	162	<213> ORGANISM: homo sapiens				
168 <210> SEQ ID NO: 4 169 <211> LENGTH: 27 170 <212> TYPE: DNA 171 <213> ORGANISM: homo sapiens 173 <400> SEQUENCE: 4 174 aaaggatcca caatgagctc ccgaatc	164	<400> SEQUENCE: 3				
169 <211> LENGTH: 27 170 <212> TYPE: DNA 171 <213> ORGANISM: homo sapiens 173 <400> SEQUENCE: 4 174 aaaggatca caatgagctc ccgaatc 175 <210> SEQ ID NO: 5 177 <2211> LENGTH: 58 178 <212> TYPE: DNA 179 <213> ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgctctaqat taagcgtagt ctgggacgtc gtatgggtat tggaacagcc tgtagaag 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 5 190 atgagctcc gatcgtcag ggagctcgc ttagtcgcc tagtgggcc caagtgcgcg 194 ccgggagtcg ggatgtgcgc ggacggctg ggttgtgat aggttgcgc caagtgcgcg 195 acgagggctc ccaccgctct gaaggggtcg ggttgtgat aggttgcgc caagtgcgcg 196 acgagggtcg ggttgcgcg gacggctcg ggttgttgat aggttgcgc caagtagcgcg 197 cggggggtct ccaccgtcc gacgagagatc tgcagagaccacac agggcgtgg atgcaactc 240 188 ggcgccagct ccaccgctct gaaggggct tgcagaggtc aggaagttc agcaacactc 240 200 gaatataact ccagaatcta ccaaaacgg gaaggttcc agccacct tagtcgcag dagcacttt 240 201 gcacatgta ttggatggc ccaggggggt ttgcatcct ttgtgtccca agaacatct 240 202 tgcacatgta ttggatggc ccaggggggt ttgcatcct ttgtgtccca agaacatct 240 203 ggagggtcg gtgacggaga tagtacaag gacccatga gagaccactg 300 204 ctccccaact ttggatgtcc caaccctcgg ctggtcaaga ttaccagga gtgctgcag gtgctgcag 240 206 gagtgggtc gtgacgaga tagtacaag gacccatga agaccactg taacatcac 240 207 gcacatgta ttggatgag caggagatc gtgagttaca gtgaggacg gtgctgcag 240 210 gcagttgga aaggacgt agcaccacca gtggagttga cgagacacac gagaccatct 420 210 ctatcacac ctttacaagg ccaggagatc gtgagttcc agcaccact gagaccaccac gtggagctcg ttgtagagagaccaccac aggagcaccaccac aggagcaccaccac aggagcaccaccac aggagcaccaccac aggagcaccaccac aggagcaccaccac aggagcaccaccac aggagcaccaccac aggagcaccaccac accacctcaccaccaccaccaccaccaccaccaccaccac	165	cgcgggatcc tgcgcgacac aatgagct				28
170 <212> TYPE: DNA 171 <213> ORGANISM: homo sapiens 173 <400> SEQUENCE: 4 174 aaaggatca caatgagctc ccgaatc 176 <210> SEQ ID NO: 5 177 <211> LENGTH: 58 178 <212> TYPE: DNA 179 <213> ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgctctagat taagcgtagt ctgggacgtc gtatgggtat tggaacagcc tgtagaag 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 5 190 atgagctcc gaatcgtcag ggagctcgc ttagtcgtca cccttctca cttgaccagg 194 ccgggagtcg ggctgtccg ggacggtcg gaccacacca aggggctgc caagcagcc 180 196 aacgaggact gcagaaaac gcagccctgc gaccacacca aggggctgga atgcaacttc 197 agatataact ccagaatcta ccaaaacggg gaacgttc agtcagaggg cagaccctgt 198 ggcgccact ttaggctgc gacagccc agaccacca agaccctgt 199 aggagctcg ccaccgctc gaaggggatc tgcaacacca aggggctgga atgcaacttc 190 agaatataact ccagaatcta ccaaaacggg gaacgttc agtcagaggg cagaccctgt 190 agaatataact ccagaatcta ccaaaacggg gaaggttcc agtcacacca agaccacctg 190 agaatataact ccagaatcta ccaaaacggg gaaggttcc agtcacacca agaccacctg 190 agatgggtct ttgggttcc caaccctcgg ctggtcaaag ttaccaggag atgcaacttc 190 gaatataact ccagaacta ccaacaccgg gaaggttc tgcattcct ttgtgtccca agaactatct 190 gacacatgta ttgggttcc acccctcgc ctggtcaaag ttaccaggac ggtctgcgag 190 gagttggaa aggacatga tagtacaag gacccatgg aggaccaaga ggcctcctt 190 gcagttggaa aaggacagta tgctccagag ttgtgtaaag ttaccaggac ggcctcctt 190 gcagttggaa aaggacagta ttgtgaggg ccggagttga gagaacaaa tgaattatt 190 gcagttggaa aaggacagta ttgtgaggg ccgagatga gagaacaaca tgaagacac cttacaaacg ccaaacacac cagagttacca atgaaacacc ttgaggacg 191 ctatacaacc ctttacaaag ccaaacaccacacacacacacacacacacacac	168	<210> SEQ ID NO: 4				
171 <213> ORGANISM: homo sapiens 173 <400> SEQUENCE: 4 174 aaaaggatca caatgagetc cegaatc 27 176 <210> SEQ ID NO: 5 177 <211> LENGTH: 58 178 <212> TYPE: DNA 179 <213> ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgetctagat taagegtagt etgggacgte gtatgggtat tggaacagce tgtagaag 58 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagetce gaategtcag ggagetege ttagtegea cecttetcea cttgaccagg 42 194 ccggaagteg getggteeg ggaeggetg ggetgttga aggtetgee caatgeegeg 12 195 caacgaggact caacgagete gaaggagte ggetgttga aggtetgee caagtegege 12 196 aacgaaggact caacgacte gaagggggggggggggggggggggggggggggggggg	169	<211> LENGTH: 27				
173 <400> SEQUENCE: 4 174 aaaggatca caatgagctc ccgaatc 176 <210> SEQ ID NO: 5 177 <211> LENGTH: 58 178 <212> TYPE: DNA 179 <212] ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgctctagat taagcgtagt ctgggacgtc gtatgggtat tggaacagcc tgtagaag 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <2213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagctcc gaatcgtcag ggagctcgc ttagtggtac cccttctcca cttgaccagg 192 gtggggctc caccgctcc ggagctgcc cactgaccc tgaaggcgc caagtgcgc ggcgggtgg ggctggtcg ggcggtgtg aggactgc caagagcgc caagagcgc caagaggct ggcgggaggaggaggaggaggaggaggaggaggaggagga	170	<212> TYPE: DNA				
174 aaaggatcca caatgagctc cogaatc 176 <210> SEQ ID NO: 5 177 <211> LENGTH: 58 178 <212> TYPE: DNA 179 <213> ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgctctagat taagcgtagt ctgggacgtc gtatgggtat tggaacagcc tgtagaag 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagctcc gaatcgtcag ggagctcgc ttagtcgtc cactgcccc tggaggcgc caagtgcgcg 194 ccgggagtcg ggctggtccg ggacgtcg ggctgttgta aggtctgcg caagtgcggc 195 aggaggagcd ccaccgctct gaaggggtc ggacgctcg aggagctcg caggagcgc caagtgcgg 196 acgaggagca ccaccgctct gaaggggtc ggaagttca aggagctga atgaaacttc 197 aggaggagct ccaccgctct gaaggggtc tgcaagagca aggagctgc agacacca aggagctgg atgaacatca 180 atgagctccc ttggacggg cagaggtcg cagacacca aggagctga atgaaacttc 180 atgagagact ccaccgctct gaaggggtc tgcaagagc aggagctgc aggagctcg 180 agatataact ccapaatcta ccaaaacggg gaaggttcc agcaacacca aggagctga atgaaacttc 180 aggaggggc tggagttgcg cgggggggggaggggaagggggggggg	171	<213> ORGANISM: homo sapiens				
176 <210> SEQ ID NO: 5 177 <211> LENGTH: 58 178 <212> TYPE: DNA 179 <213> ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgctctagat taagcgtagt ctgggacgtc gtatgggtat tggaacagcc tgtagaag 58 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagctccc gaatcgtcag ggagctcgcc ttagtcgca cccttctcca cttgaccagg 60 192 gtggggctct ccacctgccc cgctgactgc cactgcccc tggaggcgcc caagtgcgcg 120 194 ccgggagtcg ggctggtcgg ggacggctgc ggccacacca aggggctgc caagcagctc 140 196 aacgaggact gcagaaaaac gcagccctgc gacacacca aggggctga atgcaactc 240 198 ggcgcagct ccaccgctct gaaggggat tgcagagct agtcagagga dagaacttc 240 200 gaatataact ccagaatcta ccaaaacggg gaaagttcc agtcagagg cagaactct 240 201 ctcccaaact tgggctgtcc caaccctcgg ctggtcaaag ttacccaca gagaccactc 240 202 tgcacatgta ttggactgag cagaccacca ggaggctga agtcacactact 240 203 cagatgggct gtgacgagga tagtaacaag gaccccatgg aggaccacact 240 204 ctcccaaact tgggctgtcc caaccctcgg ctggtcaaag ttaccgagag tggggctga 240 206 gagtgggtct gtgacgagga tagtaacaag gaccccatgg aggaccagag cggcctcctt 240 207 ggcatgtgaa aaggcagctc actgaagcgg ctcccttt ttggactgag gtgtgcgag 480 206 gagtgggtct gtgacgagga tagtatcaag gaccccatgg aggaccagaa tgacacatct 240 201 ccccaaact tgggctgcc caagaaggg ctccctttt ttggaatgga gtgtccgag 480 206 gagtgggac tgggattcg ccaagaacgg ccccatgg aggaccagaa tgacacact 240 208 ggcaaggggc tgggattcga tgccccaga gtgaggttga cgaaacaac tgaattgatt 600 210 ccagttggaa aaggcaggtc actccaacac cgagttacca atgacaacc tgagtgccg 780 211 ctatacaacc ctttacaagg ccagaaatg attgtcaaca aacactcatg gtcccagg 840 218 ctgaaaaagg gcaagaatg tagtaggt gcgccttgtg gacagccagt gtacagaacg 840 218 ctgaaaaagg gcaagaatg ttgtaggtg cggccttgtg gacagccagt gtacagaacg 840 220 ggccgatgct gcaagacaga cgccaagg actgcaaga actgcagac ccagaaacac tgaagaacac tgaagaacac cagacacac tgagagacacacacacacacacacacacacacacacacac	173	<400> SEQUENCE: 4				
177 <211> LENGTH: 58 178 <212> TYPE: DNN 179 <2123 > ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgctctagat taagcgtagt ctgggacgtc gtatgggtat tggaacagcc tgtagaag 58 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <2212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagctcc gaatcgtcag ggagctcgcc ttagtcgcc cccttctcca cttgaccagg 60 192 gtggggctct ccacctgcc cgctgactgc cactgcccc tggaggcgcc caagtgcgcg 120 194 ccgggagtcg ggctggtccg ggacgctgc ggctgttgta aggtctgcg caagtagcgc 180 196 aacgaggact gcagaaaaa gcagcctgc ggccacacaca aggggctgg atgcaacttc 240 198 ggcgccagct ccaccgctct gaaggggat tgcagagtca agtcagagg cagacctgt 300 200 gaatataact ccagaatcta ccaaaacgg gaaggttcc agtcagagg cagacctgt 300 201 tgcacatgta ttggatggc ccagaggggt tgcattcct agccaactg taaacatcag 360 202 tgcacactgt ttggatggc caaccccgg ctggtcaaag ttaccggca gtggtcgag 480 205 gagtgggtct gtgaacagag tagtatcaag gaccccatgg aggaccaga gtgctgcgag 480 206 gagtgggtc tgggattcg tcaccctcgg ctggtcaaag ttaccggca ggcctcct 540 208 gccaaggggc tgggattcg tagtacaag gaccccatgg aggaccaga ggcctcct 540 209 gcagatggga tgggatttg tgatcccagag tagtaccaa atgaacaca tgaattgatt 600 210 gcagttggaa aaggcagct actgaaggg ctccctgttt ttggaatgga gccccatc 660 212 ctatacaacc ctttacaagg ccagaaatgt attgttcaaa caactcatg gtcccaatcg 400 214 tcaaagacct gtggaactg tatctccaca cgagttacca atgacaacce tgagtgccc 720 214 tcaaagacct gtggaactg tatctccaca cgagttacca atgacaacac tgagtgccc 720 214 tcaaagacct gtggaactg tactccaca cgagtacca atgacaacc tgagtgccc 720 214 tcaaagacct gtggaactg tactccaca cgagtacca atgacaacc ctgagtgccc 720 214 tcaaagacct gtggaactg agaaaaacc ccgaacaga cagcacagt cagcagac 22 22 gccgatgct gcaagcccca gctgacaaga actgcagaa actgcggtc ctgcgtgac 720 224 ggggagacat tttccaagaa cgcaagaa actgcagaa actgcggtc ctgcgtgac 720 224 ggggagacat tttccaagaa cgcaagaa actgcagaa actgcggtc ctgcgtgac 72 224 ggggagacat tttccaagaa cgcaagaa actgcagaa actgcggtc ctgcgtgac 72 224 ggggagacat tttccaagaa cgcaagaacc caaaaccac caaaaccg 72 226 ccgcatgct gaagcacac gctatgatga actgcgtca ccaaacgac ctacaactg 1080	174	aaaggateca caatgagete eegaate				27
178 <212> TYPE: DNA 179 <213> ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgctctagat taagcgtagt ctgggacgtc gtatgggtat tggaacagcc tgtagaag 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagctccc gaatcgtcag ggagctcgcc ttagtcgcc tggagggcc caagtgcgcg gtgggggtcg ggtgggtcg ggctgtgta aggtctgcc caagtgcgg 120 194 ccgggagtcg ggctggtccg ggacggctg ggctgttgta aggtctgcg caagtgcag 120 194 caagagact ccaccgtct gaaggggat tgcagacacca agggggtgg atgcaactc 240 198 ggcgccagct ccaccgctct gaaggggat tgcagacgtc agtcagagg caagcacctt 180 200 gaatataact ccagaatcta ccaaaacggg gaaagtttc agccaactg taaacatcag 360 201 tgcacatgta ttggatggc caacaccagg ctggtaaag ttaccagga gtgtggaagact ttaccagaaggg cagacctgt 420 204 ctccccaact tgggtcgtc caaccctcgg ctggtaaag ttaccagga gtgtggag 480 206 gagtgggtct gtgaagaga tagtatcaaag gacccatgg aggaccagga cggctcctt 540 207 gcagttggaa aaggcagct actgaaggg ctccctgttt ttggaatgga gcccqct 540 208 ggcaaggggc tgggattcga tgcctccgag gtgggattga atgtacaa caacttcatg gtccagagc ctcaccgtct ttgtagaagaacacc ttgagtgct ctcatacaacc ctttacaagg ccagaaatgt attgttcaaa caacttcatg gtccagagc 720 214 tcaaagaact gtggaactgg tattcacaa actgaagcg ccaccatg ttgaagaacac tgaattgatt 600 212 ctatacaacc ctttacaagg ccagaaatg attgttcaaa caacttcatg gtcccagtc 720 214 tcaaagaact gtggaactgg tattcacaa cagattacca atgaacacc tgagtgccg 780 216 cttgtgaaag aaacccggat ttgtgaggtg cggccttgtg gacagcacg gtacagaca 840 210 tcaacaacc gtggaacagg cagcacaga actcaca atgaacacc tgagttacc 720 214 tcaaagaact gcaagaaca cagcaacac accaccaca accaccaca caactcaca 660 222 ggccgatgct gcaagaacac cagcaacaca accaccacacacacaca	176	<210> SEQ ID NO: 5				
179 <213> ORGANISM: homo sapiens 181 <400> SEQUENCE: 5 182 cgctctagat taagcgtagt ctgggacgtc gtatgggtat tggaacagcc tgtagaag 58 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagctccc gaatcgtcag ggagctcgcc ttagtcgccc tggaggggcc caagtgcgcg 120 194 ccgggagtcg ggctggtccg ggacggctgc ggctgttgta aggtctgcg caacagcac aggagctcg gaacacacca aggggctga atgcaacatc 180 198 ggcgccagct ccaccgcct gaaggggat tgcagaggc agtcgggg caagcagtc 180 198 ggcgccagct ccaccgctc gaaggggat tgcagaggc agtcgggg caagcactt 180 198 ggcgccagct ccaccgctct gaaggggat tgcagaggc agtcagagg cagaccctgt 300 200 gaatataact ccagaatcta ccaaaacggg gaaagtttcc agccacact tggggggc gaaccatgt 300 202 tgcacatgta ttggatggc ccggggggct tgcattcct tgtgtccca agaactact 420 204 ctcccaaac tgggctgtcc caaccctcgg ctggtcaaag ttaccaggg ggcagaggagg cggcgctgt 190 206 gagtgggtct gtgacgagga tagtatcaag gacccatgg aggaccaagg gtgctgcgag 480 207 ggcaaggggc tgggattcga tgctccgag gtgggagttg acccatgg gggaacaacaa tgaattgatt 600 208 ggcaaggggc tgggattcga tgctcccgag gtggagttga caacctctatg gtcccaacc ctttacaag ccagaaatg attgtacaa caacttcatg gtcccagtgc 780 210 gcagttggaa aagcagct actgaaggg ccagggttaca attgtacaa caacttcatg gtcccagtgc 780 211 ctatacaacc ctttacaagg ccagaagacc aggattaca agacacact gtcagaggc 788 212 ctatacaacc gttggaactgg tatctccaca cgagttacaa atgacaccc tgagtgccg 780 213 ctgaaaaagg gcaagaaatg cagcaaagacc aggaccaagt gtccagaga 290 214 tcaaaaaacg gtttgagtg gaagaaatac cggcccaagt actgcggtc ctgcgttcc 290 216 ctggaaaaga aacccggat ttggagggg aagaaaacc ccgaaccagt gacagcag 780 216 ctggaaaaag gcagaaaac cagcaaagac aagaaaacc ccgaaccagt caagttcac 290 217 ctacaaaaagg gcaccaagaaaca cagcacagaaaaca atgacggtc ctgcgatgc 780 218 ctgaaaaaag gcagaaaaca gtcaaaaaca caactcaag gaccacaga actgcggacaacaa tgacggtc 290 210 cacgctggat gtttgagtg gaagaaata cggcccaaga actgcggtc ctgcgaagaa 1020 224 ggggagacat tttccaaaa cgtaacaaga actgccaaga actgcggtc caaacaacaacaacaacaacaacaacaacaacaacaac	177	<211> LENGTH: 58				
181 <400> SEQUENCE: 5 182 cgctctagat taagcgtagt ctgggacgte gtatgggtat tggaacagce tgtagaag 58 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagetce gaatcgtcag ggagetcgce ttagtegtea ccctteteea cttgaccagg 60 192 gtggggctct ccacctgcc cgctgactgc cactgcccc tggaggcgc caagtgcgcg 120 194 ccgggagtcg ggctggtccg ggacgcctgc gaccacacaca aggggctga atgcaacttc 240 198 ggcgccagct ccaccgctct gaaggggat tgcacacacac aggggctga atgcaacttc 240 198 ggcgccagt ccaccgctct gaaggggat tgcattect tgtgtccca agaccctgt 300 200 gaatataact ccagaatcta ccaacacggg gaaagtttcc agccaactg taaacatcag 360 202 tgcacatgta ttggatggcg ccggggggct tgcattect tgtgtccca agaactact 420 204 ctccccaact tgggctgtcc caaccctcgg ctggtcaaag ttacaggga gtgctgcgag 480 206 gagtgggtct gtgacgagga tagtatcaag gacccatgg aggaccagga ccggcctctt 540 208 gccaaggggc tgggattcga tgcctccacgg gtggagtag ccccatgg aggaccaaca cttacatg gaccacacc ctttacaagg ccagaaast attgttcaaa caactcatg gccggatgcga catgaacga cggcctctt ttggaagg gccccatc 660 210 gcagttggaa aagcagct actgaagcgg ctccctttt ttggaatgg gcctcgatc 660 210 gcagttggaa aagcagct actgaagcgg ctccctttt ttggaatgg gcctcgatc 660 210 ctatacaacc ctttacaagg ccagaaaatg attgttcaaa caactcatg gtcccatcy 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca acacctcatg gtcccatcy 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca acacctcatg gtcccatcy 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca acaccacc tgagtgccc 780 218 ctgaaaagg gcaagaaatg cagcaagac aagaaatcc ccgaaccac tcagggttact 900 220 tacgctggat gtttgatgt gaagaaatac cgccaaga actgaagac ccaacacc tcaggagat 1020 222 ggccgatgct gcacccca gctgaccagg actgtgaaga tgcggttcc ctccatacaccg 1080 222 ggcgatgct gcaccacca gctgacaaga ctcacacc ccaacacc ctgagagat 1020 224 ggggagacat ttccaaga cgtcatgatg atccaacc ccaacacc ccaacacc ctgcgagaat 1020 225 cccatgcca atgaagcag gtttccttc tacaggctgt tccaatga ctacaactg 1020 226 cccatgcca atgaagcag gtttccttc tacaggctgt tccaatga 1020 227 ctacaccaccaccaccaccaccaccaccaccaccaccacc	178	<212> TYPE: DNA				
182 cgctctagat taagcgtagt ctgggacgtc gtatgggtat tggaacagcc tgtagaag 184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagctccc gaatcgtcag ggagctcgcc ttagtcgtca cccttctcca cttgaccagg for eggtggtcgcggggggggggggggggggggggggggggg	179	<213> ORGANISM: homo sapiens				
184 <210> SEQ ID NO: 6 185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagetece gaategteag ggagetege cactgeece tggaggege caagtgegg 120 194 cegggagteg ggetggteeg ggaeggeteg gaccacaca aggggettga atgeaacte 240 196 aacgaggaet geagaaaaac geagecetge gacaacaca aggggettga atgeaacte 240 197 ggaggede ceacegetet gaagggate tgeagagete agteagagg caagacete 180 198 ggegecaget ceacegetet gaaggggate tgeagagete agteagagg cagacectg 300 200 gaatataact eegaateta eeaaaacggg gaaagttee tgetgteece agaacatete 420 201 teeceeaact tgggetgtee caacetegg etggteaaag ttacegggea gtgetgeag 480 202 tgeacatgta ttggatggeg eeggggggt tgetgteece agaacatete 420 203 gagtgggtet gtgaacagga tgetgeaag ttacegggea gtgetgeag 480 204 eteceeaact tgggetgtee caacetegg etggteaaag ttacegggea gtgetgeag 480 205 gagtgggtet gtgaacagga tgeteecaga geggeteett 540 208 ggeaaggge tgggattega tgeteecaga gtggagttga eegacacaga eggeeteett 540 209 geagttggaa aaggeagete actgaagegg etecetgtt ttggaatgga geeteecate 660 210 ceatacaace etttacaagg eagaaatgt attgtteaa eaactteatg gteecagte 720 214 teaaagacet gtggaategg tacteceaca egagttacea atgacaacee tgagtgeege 780 216 ettgtgaaag aaaceeggat ttgtgaggt eggeettgtg gaagacaacg tgacageage 840 218 etgaaaaagg geaagaaatg eagaagace aagaaatee eegaacacag tgacagage 218 etgaaaaagg geaagaaatg eagaagace aagaaatee eegaacacag tacagagae 218 etgaaaaagg geaagaaatg eagaagaac eagacacate eegagetee etgegtgac 222 ggeegatget geaegeecaa getgacaagg actgtgaaga tegggttee etgegtgaa 960 222 ggeegatget geaegeecaa getgacagg actgtgaaga tegggttee etgegtgaa 1020 224 ggggagacat tttecaaga egteacagg actgtgaaga tegggttee etgegtgaa 1020 225 eegeatgeea atgaagaag egteteete tacaggett tecaatga etacaacete 1020 226 eegeatgeea atgaagaag egteteete tacaaggett tecaatga 1020 227 etacaacacacacacacacacacacacacacacacacaca		-				
185 <211> LENGTH: 1128 186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagetcee gaategtcag ggagetegee ttagtegtea ecetteteea ettgaceagg 60 192 gtggggetet ceacetgeee egetgactge ggetgttgta aggtetgge caagtegge 120 194 cegggaagteg ggetggteeg ggaegetge ggetgttgta aggtetgge caageagete 180 196 aacgaggaet geagaaaaa geagecetge gaceacaca aggggetgga atgeaacte 240 198 ggegecaget ceacegetet gaaggggate tgeatteet agteagagge caagaceetg 300 200 gaatataact ceagaateta ceaaaacgg gaagttee agecaacet 420 204 eteecaact tgggetgge cagegggget tgeatteete tgtgteecea agaactatet 420 204 eteecaact tgggetgtee caacectegg etggteaaag ttacegggea gggetgegag 480 206 gagtgggtet gtgacgagga tagtateaag gacecaatg agaaceagga eggeeteett 540 208 ggeaagggge tgggattega tgeeteega gtgaatga egaacacag tgaattgat 600 210 geagttggaa aaggeaget actgaaggg eteectgtt ttggaatga geetegeate 660 212 etatacaace etttacaagg ecagaaatgt attgtteaaa caactteatg gteecagte 720 214 teaaagacet gtggaactgg tateteeca egagttacea atgacaceet ggagegee 780 216 ettgtgaaag aaaceeggat ttgtgaggtg eggeettgtg gacagacacet gtgacageag 840 218 etgaaaaagg geaagaatg cageagaac aagaaatee cegaaceagt etageggee 780 218 etgaaaaagg geaagaatg eggeaceaga actgeagag tgeeggtee 720 220 tacgetggat gtttgagtg gaagaaata eggeecagt gaagacaage 960 222 ggeegatget geageecea getgaceaga actggaaga tegggttee etgegtgae 960 222 ggeegatget geageecea getgaceaga actggaaga tecaatgaa ateggagee 790 224 ggggagacat tttecaagaa egteatgatg atecaagee etggetee etgeggaage 1020 225 ecgeatgeca atgaageag gttteeette tacaageet ecaaatgaa etacaactge 1080 226 ecgeatgeca atgaageag gttteeette tacaageet tecaatga 1020 227 egaagaatge proper PRT 232 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	182	cqctctagat taaqcqtagt ctqqqacqtc	gtatgggtat	tggaacagcc	tgtagaag	58
186 <212> TYPE: DNA 187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagetece gaategteag ggagetegee ttagtegtea ceetteteea ettgaecagg 60 192 gtggggetet ceacetgeee egetgaetge ggetgttgta aggtetgee caagegeet 120 194 cegggagteg ggetggteeg ggaeggeteg gaceacacea aggggetga atgeaacte 240 196 aacgaggaet geagaaaaac geagecetge gaceacacea aggggetga atgeaacte 240 198 ggegecaget ceacegetet gaaggggate tgeagagget agteagaggg cagacectgt 300 200 gaatataact ceagaateta ceaaaacggg gaaagttee ageecaactg taaacateag 360 202 tgeacatgta ttggatgge cegggggget tgeatteet tggteceea agaactatet 420 204 eteceeaact tgggetgtee caacectegg etggteaaag ttacegggea gtgetgegag 480 206 gagtgggtet gtgaecgaga tagtateaag gaceceatgg aggaecaga eggeeteett 540 208 ggeaagggee tgggattega tgeeteegag gtggagttga eggaaacaaa tgaattgatt 600 210 geagttggaa aaggeagete actgaagegg etecetgtt ttggaatgga geetegeate 660 212 etatacaace etttacaagg ceagaaatgt attgtteaaa caactteatg gteecagatg 720 214 teaaagacet gtggaattgg tateteeaa eggettacea atgacaacee tgagtycege 780 216 ettgtgaaag aaaceeggat ttgtgaggtg eggeettgtg gacagecagt gtaceagage 840 218 etgaaaaagg geaagaaatg cageaagae eagaaatee eeggeeteete 22 ggeegatget geaegeecea getgaecagg actgtgaag tgeggttee etgegtgae 22 ggeegatget geaegeecea getgaecagg actgtgaag tgeggttee etgeggtgae 22 ggeegatget geaegeecea getgaecagg actgtgaaga tegeggttee etgegtgae 960 222 ggeegatget geaegeecea getgaecagg actgtgaaga tgeggttee etgegagaat 1020 224 gggagacat tttecaagaa egteatgat atecagteet ceaaaatgea etacaactge 1080 226 cegcatgeca atgaageage gttteeette tacaggetgt tecaatga etacaactge 1080 227 etacaacee atgaageage gttteeette tacaggetgt tecaatga etacaactge 1080 228 eegeatgeea atgaageage gttteeette tacaggetgt tecaatga etacaactge 1080 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	184	<210> SEQ ID NO: 6		-		
187 <213> ORGANISM: homo sapiens 189 <400> SEQUENCE: 6 190 atgagetece gaategteag ggagetegee ttagtegea ecetteteea ettgaecagg 60 192 gtggggetet ecacetgeee egetgaetge cactgeecee tggagggee eaagtgegeg 120 194 eegggagteg ggetggteeg ggaeggetge ggetgttga aggtetgege caagtgegeg 120 196 aacgaggaet geagaaaaac geageeetge gaceacaca aggggetga atgeaacte 240 198 ggegecaget ecacegetet gaaggggate tgeagagete agteagaggg eagaecetgt 300 200 gaatataact ecagaateta ecaaaacggg gaagtttee ageecaactg taaacateag 360 202 tgeacatgta ttggatggeg eeggggget tgeatteete tgtgteecea agaactate 420 204 eteecaaact tggatggee eaaceetegg etggteaaag ttaceggea gtgetgega 480 206 gagtgggtet gtgaecagga tagtateaag gaceecatgg aggaecagga eggeeteett 540 208 ggeaagggge tgggattega tgeeteegag gtggagttga eggaecagge eggeeteett 540 208 ggeaagggge tgggattega tgeeteegag gtggagttga eggaecagg eggeeteett 540 210 geagttggaa aaggeagete actgaagegg eteecetgtt ttggaatgga geetegeate 660 210 geagttggaa aaggeaget actgaagagg eteecetgtt ttggaatgga geetegeate 660 211 etatacaace etttacaagg ecagaaatgt atgtteeaa acaceteatg gteecagte 780 212 etatacaace gtggaactgg tateteeae eggettgg gacageage gtaeageeg 780 213 ettggaaag geagaaatg eageaagae aagaaateee eeggettee etgegtgga 660 212 ggeegatget geageeeea getgaecagg actgtgaaga tgeggttee etgegtgga 660 212 ggeegatget geageeeea getgaecagg actggaaga tgeggttee etgegtgga 660 212 ggeegatget geageeeea getgaecagg actgtgaaga tgeggttee etgegagaa 1020 220 taegetgga gtttegete taeaggetg teeaatga actgeggte etgegaaga 1128 220 e210> SEQ ID NO: 7 230 e211> LENGTH: 375 231 e212> TYPE: PRT 232 e213> ORGANISM: homo sapiens 234 e400> SEQUENCE: 7	185	<211> LENGTH: 1128				
189 <400> SEQUENCE: 6 190 atgagetece gaategteag ggagetegee ttagtegtea ecetteteea ettgaecagg 60 192 gtggggetet ecacetgeee egetgaetge eactgeecee tggaggegee eaagtegeeg 120 194 cegggagteg ggetggteeg ggaeggetge ggetgttga aggtetgege eaagtagetee 180 196 aacgaggaet geagaaaaac geagecetge gaccaecea aggggetgga atgeaactee 240 198 ggegecaget ecacegetet gaaggggate tgeagaaget aggeeacetge 300 200 gaatataact ecagaateta ecaaaacggg gaaagtttee ageecaactg taaacateag 360 202 tgeacatgta ttggatggeg ecgggggget tgeatteete tgtgteecea agaactatet 420 204 eteeceaact tgggetgtee eaaceetegg etggteaaag ttaecegge gtgetgegag 480 206 gagtgggtet gtgaecgagga tagtateaag gaeceeatgg aggacaeaa tgaatgate 600 208 ggeaagggge tgggattega geceetegg gtggagttga eggaeceett 540 209 gaatataact ecagaateta eaagaaggg eeceett 190 200 gagtgggtet gtgaecgagg tagtaeaag gaeceeatgg aggaaacaa tgaatgate 600 2010 geagtgggaa aaggeagete actgaagegg eteectgtt ttggaatgga geceetett 600 210 geagttggaa aaggeagete actgaagegg eteecetgtt ttggaatgga geceegate 660 212 etatacaace etttacaagg ecagaaatgt attgteaaa eaacteatg gteecagte 720 214 teaaagaeet gtggaactgg tateteeaa egagttaeea atgacaacee tgagtgeege 780 216 ettgtgaaag aaaceeggat ttgtgaggtg eggeettgtg gaagaeceag gtacagaage 840 218 etgaaaaagg geaagaaatg eageaagaee aagaaateee eegaaceag eaggttaee 900 220 taegetggat gtttgagtgt gaagaaatae eggeecaaga actgeggtte etgegtggae 900 222 ggeegatget geaegeecea getgaecaag actgtgaaga teeggttee etgegtggae 1020 224 ggggagacat tttecaagaa egteatgatg ateeagteet ecaaatgea etacaactge 1080 225 eegeatgeea atgaageag gttteeette taeaggetgt teeaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	186	<212> TYPE: DNA				
190 atgagetece gaategteag ggagetegee ttagtegtea ceetteteea ettgaceagg 60 192 gtggggetet ceacetgeee egetgactge caetgeeeee tggaggegee caagtgegeg 120 194 cegggagteg ggetggteeg ggagegetge ggetgttgta aggtetgee caageagete 180 196 aacgaggaet geagaaaaaa geageeetge gaceacaca aggggetgga atgeaactte 240 198 ggegeeaget ceacegetet gaaggggate tgeagaggete aggeeagetg agaceeetgt 3300 200 gaatataact ceagaateta ceaaaacggg gaaagtttee ageecaactg taaacateag 360 202 tgeacatgta ttggatgge cegggggget tgeatteete tgtgteecea agaactatet 420 204 etceecaact tgggetgtee caaceetegg etggteaaag ttacegggea gtgetgegag 480 206 gagtgggtet gtgaatega tagtateaag gaceecatgg aggaceagge eggeeteett 540 208 ggeaagggge tgggattega tgeeteegag gtgggttga etgeatgaag eggeeteett 540 208 ggeaagggge tgggattega teecteegag gtgggttga etgeatgaa ttggaaacaa tgaattgatt 600 212 ctatacaace ctttacaagg ceagaaatgt attgtteaaa eaactteatg gteecagte 660 212 ctatacaace tgtggaactgg tateteeaa egggttacea atgacaacee tgagtgeege 780 214 teaaagacet gtggaactgg tateteeaa egggettega agaaatee eggeetegte 660 218 ettgaaaaag geaagaaatg cageagaee aagaaateee eggaeeagt gtacageage 840 218 etgaaaaagg geaagaaatg cageagaee aagaaateee eggeecaagt gtacageage 960 220 tacgetggat gtttgagtgt gaagaaatae eggeecaagt teecagtee etgegtgae 960 222 ggeegatget geaegeeeea getgaeeagg actgtaaga tgeggtteee etgegtgae 960 224 ggggagacat tttecaagaa egteatgatg atecagteet eegaatgea etacaactge 1080 226 eegeatgeea atgaageage gtteeette tacaggetgt teeaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	187	<213> ORGANISM: homo sapiens				
192 gtggggtct ccacctgcc cgctgactgc cactgcccc tgggaggcgc caagtgcgg 120 194 ccgggagtcg ggctggtccg ggacggctcc ggctgttgta aggtctgcgc caagcagctc 180 196 aacgaggact gcagaaaaac gcagcctgc gaccacaca aggggctgga atgcaacttc 240 198 ggcgccagct ccaccgctct gaaggggatc tgcagaggtc aggccagct caagcactt 240 200 gaatataact ccagaatcta ccaaaacggg gaaggttcc agccaactg taaacatcag 360 202 tgcacatgta ttggatggcc caaccctcgg ctggtcaaag ttaccgggca gtgctgcga 480 204 ctcccaact tgggctgcc caaccctcgg ctggtcaaag ttaccgggca gtgctgcgag 480 206 gagtgggtct gtgaacgagct accaccatgg aggactact tgagacaggc cggctcctt 540 208 ggcaaggggc tgggattcga tgcctccgag gtggggtttg cgagaacaa tgaattgat 600 210 gcagttggaa aaggcagct accagaacgg ctccctgtt ttgaatga gcctcgcatc 660 212 ctatacaacc ctttacaagg ccagaaatgt attgtcaaa caacttcatg gtcccagtg 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgaacacc tgagtgcgc 780 216 cttgtgaaag aaacccggat ttgtgaggtg cggccttgtg gacagccagt gtacagcagc 780 217 ctatggaaag gcaagaaatg cagcaagacc aagaaatcc ccgaaccagt caggttact 900 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatcc ccgaaccagt caggttact 900 219 cagctggat gtttgagtgt gaagaaatac cggcccaagt tacgggttc ctgcgtgac 960 210 ctgctggat gtttgagtgt gaagaaatac cggcccaagt tacgggttc ctgcgtgac 1020 210 tacgctggat gtttgagtgt gaagaaatac cggcccaagt tcgggttcc ctgcgtgac 1020 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt tcccagtgc ctgcgtgac 1020 221 ggggagacat tttccaagaa cgtcatgatg atcagtcct ccaaatgcaa ctacaactgc 1080 222 cgcatgcca atgaagcagc gtttccctt tacaggctgt tccaatga 1128 223 <210 SEQ ID NO: 7 230 <211 LENGTH: 375 231 <212 TYPE: PRT 232 <213 ORGANISM: homo sapiens 234 <400 SEQUENCE: 7	189	<400> SEQUENCE: 6				
194 ccgggagtcg ggctggtccg ggacgcctgc gaccacca aggggctga atgcaacttc 240 198 ggcgccagct ccaccgctct gaaggggatc tgcagaacca aggggctga atgcaacttc 240 200 gaatataact ccagaatcta ccaaaacggg gaaggtttcc agcccactg ttgaaccactg taaacatcag 360 202 tgcacatgta ttggatggcg ccggggggct tgcattcctc tgtgtccca agaacctatct 240 204 ctcccaact tgggctgcc caaccctcgg ctggtcaaag ttaccgggaag ggctcgct 242 206 gagtgggtc tgtgacgaga tagtatcaag gacccatgg agaccagga gtgctgcgag 242 207 gagtagggc tgggattcga tgcctccgag gtggagttga cgagaacaa tgaattgat 240 208 ggcaaggggc tgggattcga tgcctccgag gtggagttga cgagaaacaa tgaattgatt 240 208 ggcaaggggc tgggattcga tgcctccgag gtggagttga cgagaaacaa tgaattgatt 240 209 gcagttggaa aaggcagct actgaagcgg ctccctgtt ttggaatgga gcctcgcatc 240 210 gcagttggaa aaggcagct actgaagagg ctccctgtt ttggaatgga gcctcgcatc 240 212 ctatacaacc ctttacaagg ccagaaatgt attgttcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 780 216 cttgtgaaag aaacccggat ttgtgaggtg cggccttgtg gacagccagt gtacagcagc 780 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatcc ccgaaccagt gacagcagc 780 220 tacgctggat gtttgagtg gaagaaatac cggcccaag actgcggatc ctgcgttact 900 220 tacgctggat gtttgaagtg gaagaaatac cggcccaag actgtgaaga tgcggttcc ctgcgtgga 960 222 ggccgatgct gcacgccca gctgaccagg actgtgaaga tgcggttcc ctgcgtgaaga 1020 224 ggggagacat tttccaagaa cgtcatgatg accagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagacag gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	190	atgagetece gaategteag ggagetegee	ttagtcgtca	cccttctcca	cttgaccagg	60
196 aacgaggact gcagaaaac gcagcctgc gaccacaca aggggctgga atgcaacttc 198 ggcgccagct ccaccgctct gaaggggatc tgcagaggct agtcagaggg cagacctgt 200 gaatataact ccagaatcta ccaaaacggg gaaagtttcc agcccaactg taaacatcag 360 202 tgcacatgta ttggatggcg ccggggggct tgcattcctc tgtgtcccca agaactatct 420 204 ctcccaact tgggctgtcc caaccctcgg ctggtcaaaag taccgggca gtgctgcgag 480 208 ggcaaggggc tgggattcga tagtacaag gacccatgg aggaccagga cggctcctt 540 208 ggcaaggggc tgggattcga tgcctccgag gtggagttga cgagaacaacaactag aggaccagga cggctcctt 540 208 ggcaaggggc tgggattcga tgcctccgag gtggagttga cgagaacaacaactag aggaccagga cggctcctt 540 208 ggcaaggggc tgggattcga tgcctccagag gtcccctgtt ttggaatgga gcctcgcatc 660 210 gcagttggaa aaggcagct actgaaggg ctccctgtt ttggaatgga gcctcgcatc 660 212 ctatacaacc ctttacaagg ccagaaatgt attgtcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 780 218 ctggaaaag gcaagaaatg cagcaagacc aggacaacag gtacagcagg gtacagcagg gtacagcagg gtacagcagt tacgcagcag aggaccagg acagccagt caggttact 900 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtgga 960 222 ggccgatgct gcacgccca gctgaccagg actgtgaaga tgcggttcc ctgcgtgaag 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcag gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7						120
198 ggcgcagct ccaccgctct gaaggggatc tgcagagctc agtcagaggg cagacctgt 300 200 gaatataact ccagaatcta ccaaaacggg gaaagtttcc agccaactg taaacatcag 360 202 tgcacatgta ttggatggcg ccggggggct tgcattcctc tgtgtccca agaactatct 420 204 ctccccaact tgggctgtcc caaccctcgg ctggtcaaag ttaccgggca gtgctgcgag 480 206 gagtgggtct gtgacgagga tagtatcaag gacccatgg aggaccagga cggcctcctt 540 208 ggcaaggggc tgggattcga tgcctccgag gtggagttg cgagaacaaca tgaattgatt 600 210 gcagttggaa aaggcagctc actgaagcgg ctccctgtt ttggaatgga gcctcgcatc 660 212 ctatacaacc ctttacaagg ccagaaatgt attgtcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 780 216 cttgtgaaag aaacccggat ttgtgaggtg cggcctttgtg gacagcagt gtacagcagc 840 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatcc cggcccaagt caggtttact 200 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtgac 960 222 ggccgatgct gcacgccca gctgaccagg actgtgaaga actgcggttc ctgcgtgac 960 222 ggccgatgct gcacgccca gctgaccagg actgtgaaga tgcggttcc ctgcgtgac 960 222 ggcgatgct gcacgccca gctgaccagg actgtgaaga tgcggttcc ctgcgaagat 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgca ctacaactgc 1080 226 ccgcatgca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	194	cegggagteg ggetggteeg ggaeggetge	ggctgttgta	aggtctgcgc	caagcagctc	180
200 gaatataact ccagaatcta ccaaaacggg gaaagtttc agcccaactg taaacatcag 360 202 tgcacatgta ttggatggcg ccggggggct tgcatcctc tgtgtccca agaactatct 420 204 ctccccaact tgggctgtcc caaccctcgg ctggtcaaag ttaccgggca gtgctgcgag 480 206 gagtgggtct gtgaacgagga tagtatcaag gaccccatgg cgagaccagga cggcctcctt 540 208 ggcaaggggc tgggattcga tgcctccgag gtggagttga cgagaacaa tgaattgatt 600 210 gcagttggaa aaggcagctc actgaaaggg ctcccttt ttggaatgga gcccagtg cagaaatgt attgtcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaccc tgagtgccgc 780 216 cttgtgaaag aaacccggat ttgtgaggtg cgggcttgtg gacagcagt gtacagcagc 840 218 ctgaaaaagg gcaagaaatg cagcaagacc aggaaatcc cggaccagt gtacagcagc 290 216 cttgtgaaag aaacccggat ttgtgaggtg cggcctagg gacagcagt gtacagcagc 840 218 ctgaaaaagg gcaagaaatg cagcaagacc aggaaatcc cggcccaagt 290 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtggac 960 222 ggccgatgct gcacgccca gctgaccagg actgtgaagga tgcgggttcc ctgcgtggac 960 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgca ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	196	aacgaggact gcagaaaaac gcagccctgc	gaccacacca	aggggctgga	atgcaacttc	240
202 tgcacatgta ttggatggc ccggggggtt tgcattctt tgtgtccca agaactatet 420 204 ctccccaact tgggctgtc caaccctcgg ctggtcaaag ttaccgggca gtgctgcgag 480 206 gagtgggtct gtgacgagga tagtatcaag gaccccatgg aggaccagga cggcctcctt 540 208 ggcaaggggc ttgggattcga tgcctccgag gtggagttga aggaccagga cggcctcctt 540 208 ggcatggaa aaggcagctc actgaagcgg ctccctgtt ttggaatgga gcctcgcatc 660 210 gcagttggaa aaggcagct actgaagcgg ctccctgtt ttggaatgga gcctcgcatc 660 212 ctatacaacc ctttacaagg ccagaaatgt attgttcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 780 216 cttgtgaaag aaacccggat ttgtgaggtg cggccttgtg gacagccagt gtacagcagc 840 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatcc ccgaaccagt caggtttact 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt cggcctcggtc ctgcgtggac 960 222 ggccgatgct gcacgccca gctgaccagg actgtgaaga tgcggttcc ctgcgtgaga 1020 224 ggggagacat tttccaagaa cgtcatgatg atcagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttccctc tacaggctgt tccaatga 1128 229 <210	198	ggcgccagct ccaccgctct gaaggggatc	tgcagagctc	agtcagaggg	cagaccctgt	300
204 ctccccaact tgggctgcc caaccctcgg ctggtcaaag ttaccgggca gtgctgcgag 480 206 gagtgggtct gtgacgagga tagtatcaag gaccccatgg aggaccagga cggcctcctt 540 208 ggcaaggggc tgggattcga tgcctccgag gtggagttga cgagaaacaa tgaattgatt 600 210 gcagttggaa aaggcagctc actgaagcgg ctccctgtt ttggaatgga gcctcgcatc 660 212 ctatacaacc ctttacaagg ccagaaatgt attgttcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 720 216 cttgtgaaag aaacccggat ttgtgaggtg cggccttgtg gacagcaagt gtacagcagc 840 218 ctgaaaaagg gcaagaaatgt cagcaagacc aagaaatcc ccgaaccagt caggttact 900 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtggac 960 222 ggccgatgct gcacgccca gctgaccagg actgtgaaga tgcggttcc ctgcggagac 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagacgg gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	200	gaatataact ccagaatcta ccaaaacggg	gaaagtttcc	agcccaactg	taaacatcag	360
206 gagtgggtct gtgacgagga tagtatcaag gaccccatgg aggaccagga cggcctctt 540 208 ggcaaggggc tgggattcga tgcctccgag gtggagttga cgagaaacaa tgaattgatt 600 210 gcagttggaa aaggcagctc actgaagcgg ctccctgtt ttggaatgga gcctcgcatc 660 212 ctatacaacc ctttacaagg ccagaaatgt attgttcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 780 216 cttgtgaaag aaacccggat ttgtgaggt cggccttgtg gacagcagt gtacagcagc 840 217 ctatacaacg gtggaactgg cagcaagacc aagaaatcc ccaactcatg gtcccagtgc 780 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatcc ccaacagcagt gtacagcagc 840 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtggac 960 220 ggccgatgct gcacgcccca gctgaccagg actgtgaaga tgcggttcc ctgcggaagat 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	202	tgcacatgta ttggatggcg ccggggggct	tgcattcctc	tgtgtcccca	agaactatct	. 420
208 ggcaaggggc tgggattcga tgcctccgag gtggagttga cgagaaacaa tgaattgatt 600 210 gcagttggaa aaggcagctc actgaagcgg ctccctgtt ttggaatgga gcctcgcatc 660 212 ctatacaacc ctttacaagg ccagaaatgt attgttcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 780 216 cttgtgaaag aaacccggat ttgtgaggtg cggccttgtg gacagccagt gtacaagcagc 840 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatcc ccgaaccagt caggttacct 90 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtggac 960 222 ggccgatgct gcacgcccca gctgaccagg actgtgaaga tgcggttcc ctgcgtggac 960 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	204	ctccccaact tgggctgtcc caaccctcgg	ctggtcaaag	ttaccgggca	gtgctgcgag	480
210 gcagttggaa aaggcagctc actgaagcgg ctccctgttt ttggaatgga gcctcgcatc 660 212 ctatacaacc ctttacaagg ccagaaatgt attgttcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 780 216 cttgtgaaag aaacccggat ttgtgaggtg cggccttgtg gacagccagt gtacagcagc 840 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatccc ccgaaccagt caggttact 900 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtgac 960 222 ggccgatgct gcacgccca gctgaccagg actgtgaaga tgcggttccc ctgcgtagac 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	206	gagtgggtct gtgacgagga tagtatcaag	gaccccatgg	aggaccagga	cggcctcctt	540
212 ctatacaacc ctttacaagg ccagaaatgt attgttcaaa caacttcatg gtcccagtgc 720 214 tcaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 780 216 cttgtgaaag aaacccggat ttgtgaggtg cggccttgtg gacagccagt gtacagcagc 840 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatccc ccgaaccagt caggtttact 900 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggtc ctgcgtggac 960 222 ggccgatgct gcacgccca gctgaccagg actgtgaagga tgcggttccc ctgcgtggac 960 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttccctc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	208	ggcaaggggc tgggattcga tgcctccgag	gtggagttga	cgagaaacaa	tgaattgatt	600
214 toaaagacct gtggaactgg tatctccaca cgagttacca atgacaaccc tgagtgccgc 780 216 cttgtgaaag aaacccggat ttgtgaggtg cggccttgtg gacagccagt gtacagcagc 840 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatcc ccgaaccagt caggtttact 900 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtggac 960 222 ggccgatgct gcacgcccca gctgacagg actgtgaaga tgcggttccc ctgcgaagat 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210 > SEQ ID NO: 7 230 <211 > LENGTH: 375 231 <212 > TYPE: PRT 232 <213 > ORGANISM: homo sapiens 234 <400 > SEQUENCE: 7	210	gcagttggaa aaggcagctc actgaagcgg	ctccctgttt	ttggaatgga	gcctcgcatc	660
216 cttgtgaaag aaacceggat ttgtgaggtg cggcettgtg gacagccagt gtacagcagc 840 218 ctgaaaaagg gcaagaaatg cagcaagacc aagaaatccc ccgaaccagt caggtttact 900 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtggac 960 222 ggccgatget gcacgcccca gctgaccagg actgtgaaga tgcggttccc ctgcgaagat 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210 > SEQ ID NO: 7 230 <211 > LENGTH: 375 231 <212 > TYPE: PRT 232 <213 > ORGANISM: homo sapiens 234 <400 > SEQUENCE: 7	212	ctatacaacc ctttacaagg ccagaaatgt	attgttcaaa	caacttcatg	gtcccagtgc	720
218 ctgaaaaagg gcaagaatg cagcaagac aagaaatcc ccgaaccagt caggtttact 220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtggac 960 222 ggccgatgct gcacgcccca gctgaccagg actgtgaaga tgcggttcc ctgcgaagat 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	214	tcaaagacct gtggaactgg tatctccaca	cgagttacca	atgacaaccc	tgagtgccgc	780
220 tacgctggat gtttgagtgt gaagaaatac cggcccaagt actgcggttc ctgcgtggac 960 222 ggccgatgct gcacgcccca gctgaccagg actgtgaaga tgcggttccc ctgcgaagat 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	216	cttgtgaaag aaacccggat ttgtgaggtg	cggccttgtg	gacagccagt	gtacagcagc	840
222 ggccgatgct gcacgcccca gctgaccagg actgtgaaga tgcggttcc ctgcgaagat 1020 224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 1080 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	218	ctgaaaaagg gcaagaaatg cagcaagacc	aagaaatccc	ccgaaccagt	caggtttact	900
224 ggggagacat tttccaagaa cgtcatgatg atccagtcct ccaaatgcaa ctacaactgc 226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	220	tacgctggat gtttgagtgt gaagaaatac	cggcccaagt	actgcggttc	ctgcgtggac	960
226 ccgcatgcca atgaagcagc gtttcccttc tacaggctgt tccaatga 1128 229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	222	ggccgatgct gcacgcccca gctgaccagg	actgtgaaga	tgcggttccc	ctgcgaagat	1020
229 <210> SEQ ID NO: 7 230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	224	ggggagacat tttccaagaa cgtcatgatg	atccagtcct	ccaaatgcaa	ctacaactgc	1080
230 <211> LENGTH: 375 231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	226	ccgcatgcca atgaagcagc gtttcccttc	tacaggctgt	tccaatga		1128
231 <212> TYPE: PRT 232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	229	<210> SEQ ID NO: 7				
232 <213> ORGANISM: homo sapiens 234 <400> SEQUENCE: 7	230	<211> LENGTH: 375				
234 <400> SEQUENCE: 7	231	<212> TYPE: PRT				
	232	<213> ORGANISM: homo sapiens				
236 Met Ser Ser Arg Ile Val Arg Glu Leu Ala Leu Val Val Thr Leu Leu	234	<400> SEQUENCE: 7				
	236	Met Ser Ser Arg Ile Val Arg Glu	Leu Ala Leu	Val Val Thr	Leu Leu	





DATE: 07/25/2001

TIME: 14:29:14

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/901,910

Input Set : A:\126p2-s1.txt
Output Set: N:\CRF3\07252001\1901910.raw

237	1				5					10					15	
239	His	Leu	Thr		Val	Gly	Leu	Ser		Cys	Pro	Ala	Asp		His	Cys
240				20		*			25	_	_		_	30		
	Pro	Leu		Ala	Pro	Lys	Cys		Pro	Gly	Val	GTA		Val	Arg	Asp
243	a 1	G	35	a	a	.	17-3	40		T	a1	T	45	61	3.00	C
245	Gly	50	GIY	Cys	Cys	гåг	55	Cys	Ата	гуѕ	GIII	60	ASII	GIU	ASP	Cys
	Arg		Thr	Gln	Dro	Cue		Hic	Thr	T.ve	Glv		Glu	Cvs	Δsn	Phe
249		Буз	1111	GIII	FIO	70	rab	1113	TILL	цуз	75	пси	OLU	Cyb	11511	80
	Gly	Ala	Ser	Ser	Thr		Leu	Lvs	Gly	Ile		Arq	Ala	Gln	Ser	
252	- 1				85			-	-	90	-	_			95	
254	Gly	Arg	Pro	Cys	Glu	Tyr	Asn	Ser	Arg	Ile	Tyr	Gln	Asn	Gly	Glu	Ser
255				100					105					110		
257	Phe	Gln	Pro	Asn	Cys	Lys	His	Gln	Cys	Thr	Cys	Ile	Gly	Trp	Arg	Arg
258			115					120					125		•	
	Gly		Cys	Ile	Pro	Leu	_	Pro	Gln	Glu	Leu		Leu	Pro	Asn	Leu
261		130					135		_			140		_	_	
	Gly	Cys	Pro	Asn	Pro		Leu	Val	Lys	Val		GLY	GIn	Cys	Cys	
	145	m	17.0 7	C	7	150	7.00	Com	т1 о	T ***	155	Dec	Wot	c1	Nan	160
265	Glu	тгр	vaı	Cys	165	GIU	ASP	ser	me	170	Asp	PLO	met	Glu	175	GIII
	Asp	C1 v	Lou	Lou		Luc	G1v	Lou	Clv		h en	λla	Sor	Glu		Gln
270	нар	СТУ	пец	180	СТУ	цуз	GLY	Бец	185	riic	nsp	AIU	Der	190	VUI	Olu
	Leu	Thr	Ara		Asn	Glu	Leu	Ile		Val	Glv	Lvs	Glv		Ser	Leu
273			195					200			-	•	205			
275	Lys	Arg	Leu	Pro	Val	Phe	Gly	Met	Glu	Pro	Arg	Ile	Leu	Tyr	Asn	Pro
276		210					215					220				
278	Leu	Gln	Gly	Gln	Lys		Ile	Val	Gln	Thr		Ser	${\tt Trp}$	Ser	Gln	
	225					230					235					240
	Ser	Lys	Thr	Cys		Thr	Gly	Ile	Ser		Arg	Val	Thr	Asn		Asn
282	D	a 1			245		T	α1	m1	250	71 -	a	a 1	77 - 1	255	D
284	Pro	GIU	Cys	260	Leu	vaı	ьуs	GIU	265	Arg	ire	Cys	GIU	270	Arg	Pro
	Cys	Gly	G1n		Va 1	Туг	Ser	Ser		T.ve	Luc	G1 v	Lve		Cve	Ser
288	Cys	GLY	275	110	va.	1 Y 1	JCI	280	пси	шуз	Lys	OLI	285	цуз	Cys	DCI
	Lys	Thr		Lvs	Ser	Pro	Glu		Val	Arq	Phe	Thr		Ala	Glv	Cvs
291	-1-	290	-1-	-1-			295			5		300	-		-	
293	Leu	Ser	Val	Lys	Lys	Tyr	Arg	Pro	Lys	Tyr	Cys	Gly	Ser	Cys	Val	Asp
294	305					310					315					320
296	Gly	Arg	Cys	Cys	Thr	Pro	Gln	Leu	Thr	Arg	Thr	Val	Lys	Met		Phe
297					325					330					335	
	Pro	Cys	Glu	_	Gly	Glu	Thr	Phe		Lys	Asn	Val	Met		Ile	Gln
300		_	_	340	_	_	_	_	345			_	- 1	350	- 1	m.1
	Ser	ser	-	Cys	ASN	тyr	Asn	-	Pro	HIS	Α⊥а	ASN		Ата	нта	ьие
303	Pro	Dho	355	λνα	Lou	Dho	Clr	360					365			
306	210	370	- A -	ary	nea	riie	375									
	<210		о п	NO:	8		3,3									
	<211															





RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/901,910

DATE: 07/25/2001 TIME: 14:29:14

Input Set : A:\126p2-s1.txt

Output Set: N:\CRF3\07252001\1901910.raw

310 <212> TYPE: DNA

311 <213> ORGANISM: homo sapiens

313 <400> SEQUENCE: 8

314 cgcgggtacc aggtagcatt tagtccctaa

30





VERIFICATION SUMMARY

PATENT APPLICATION: US/09/901,910

DATE: 07/25/2001 TIME: 14:29:15

Input Set : A:\126p2-s1.txt
Output Set: N:\CRF3\07252001\I901910.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number